03050205-040

(Indian Field Swamp)

General Description

Watershed 03050205-040 is located in Dorchester and Orangeburg Counties and consists primarily of *Indian Field Swamp* and its tributaries. The watershed occupies 101,890 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Goldsboro-Lynchburg-Rains-Hobcaw-Mouzon series. The erodibility of the soil (K) averages 0.19; the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 2.17% urban land, 21.98% agricultural land, 8.17% scrub/shrub land, 1.18% barren land, 51.93% forested land, 14.20% forested wetland (swamp), 0.18% nonforested wetland (marsh), and 0.19% water.

Mill Branch and Snell Branch combine to form Indian Field Swamp, which eventually drains into the Edisto River. Downstream from the confluence, Dove Branch and Wadboo Branch enter the swamp, followed by Spring Branch, Big Branch, Tom and Kate Branch, Pineland Branch, Millpond Branch, and Gum Branch. Polk Swamp (Bear Branch, Cowtail Creek) flows past the Town of St. George and drains into Indian Field Swamp at the base of the watershed. There are a total of 144.1 stream miles in this watershed. Indian Field Swamp and Polk Swamp are classified FW* (Site specific standards - DO not less than 4.0 mg/l, pH between 5.0-8.5 SU), and the remaining streams are classified FW.

Water Quality

Station #	Type	Class	Description
E-016	P	FW*	POLK SWAMP AT S-18-180, 2 MI S OF ST. GEORGE
E-109	W	FW*	POLK SWAMP AT S-18-19
E-597	BIO	FW*	INDIAN FIELD SWAMP AT US 78
E-032	W	FW*	INDIAN FIELD SWAMP AT S-18-19

***Indian Field Swamp* - There are two monitoring sites along Indian Field Swamp, which was Class B until April, 1992. Aquatic life uses are fully supported at the upstream site (E-597) based on macroinvertebrate community data. At the downstream site (E-032), aquatic life uses are fully supported, but there was a very high concentration of chromium measured in 1997. Recreational uses are fully supported.**

***Polk Swamp* - There are two monitoring sites along Polk Swamp, which was Class B until April, 1992. At the upstream site (E-016), aquatic life uses are fully supported based on macroinvertebrate community data, but there is a significant decreasing trend in dissolved oxygen and a very high concentration of chromium measured in 1996. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. At the downstream site (E-109), aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Natural conditions in this stream may have contributed to the observed low dissolved oxygen values seen at both sites. Recreational uses are not supported at either site due to fecal coliform bacteria excursions.**

A fish consumption advisory has been issued by the Department for mercury and includes the streams within this watershed (see advisory p.31).

Permitted Activities

Point Source Contributions

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)* *COMMENT*	*NPDES#* *TYPE* *LIMITATION*
TOM AND KATE BRANCH **BLUE CIRCLE CEMENT CO.** **PIPE #: 001 FLOW: 3.0**	**SC0022586** **MINOR INDUSTRIAL** **EFFLUENT**
TOM AND KATE BRANCH **TOWN OF HARLEYVILLE** **PIPE #: 001 FLOW: 0.120** **PIPE #: 001 FLOW: 0.175 (PROPOSED)** **WETLAND; WQL FOR NH3-N, DO, TRC, BOD5**	**SC0038504** **MINOR MUNICIPAL** **WATER QUALITY** **WATER QUALITY**
POLK SWAMP **TOWN OF ST. GEORGE** **PIPE #: 001 FLOW: 0.80** **WETLAND; WQL FOR NH3-N, DO, TRC, BOD5**	**SC0025844** **MINOR MUNICIPAL** **WATER QUALITY**

LAND APPLICATION *FACILITY NAME* *COMMENT*	*PERMIT #* *TYPE*
SPRAY FIELD **UPPER DORCHESTER COUNTY WWTP**	**ND0074713** **MINOR MUNICIPAL**

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
PAUL W. JONES HAULING **P&M MINE**	**0950-18** **SAND**
TRULUCK INDUSTRIES **REEVES-EDISTO MINE**	**0973-18** **SAND**
PALMETTO SAND COMPANY **INDIAN FIELD CREEK PLANT**	**0786-18** **SAND**

Growth Potential

Interstate 95 crosses US 78 near the Town of St. George in the center of the watershed. This interchange area has a high growth potential, particularly if US 78 is widened as proposed. The I-95 interchange with US 178 is another growth area. A rail line parallels Highway 78 through St. George and together with the presence of I-95, provides a high industrial growth potential.